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Mr. Gabb made some remarks on a small lot of fossils submitted to him by Prof. Orton. The fossils are small, and all belong to undescribed species. They are of unusual interest, being the first fossils, so far as he was aware, ever found in the immense clay deposits of the Amazon Valley—the Tabatinga Clay. The fossils indicate a marine origin for this clay, all of the genera being essentially salt-water forms. They were found by Prof. Orton in a bluff showing a fine section of about fifty feet in height, at the town of Pebas, on the Amazon River, two miles above where it joins the Marañon.

July 28th.

DR. J. GIBBONS HUNT in the Chair.

Fifteen members present.

The following gentlemen were elected members: Geo. Roberts, M.D., Mr. Levi Taylor.

The following were elected correspondents: S. Spencer Cobbold, M.D., of London, W. Kitchen Parker, of London, Rev. Samuel Houghton, of Dublin, Alphonse Milne Edwards, of Paris, Wm. T. Brigham, of Boston.

On favorable reports of the committees, the following papers were ordered to be printed:

MITCHELLA REPENS, L., a dioecious plant.

BY THOMAS MEEHAN.

A few weeks ago I had the honor of pointing out to the members of the Academy that *Epigæa repens* was a dioecious plant. I have now to report a like discovery in *Mitchella repens*.

In the case of *Epigæa* I had to indicate the polymorphism accompanying the divisions of the sexes, as part of the discovery; in the present instance Dr. Asa Gray is before me in noting the distinct appearances; the originality of my own observation lies merely in giving the meaning of the facts already recorded. In the last (5th) edition of Gray's Manual, speaking of *Mitchella*, the author says, "Flowers occasionally 3—6, merous, always dimorphous, all those of some individuals having exerted stamens and included stigmas,—of others included stamens and exerted style." Although this statement expresses the appearance, it is not strictly accurate; for the pistil in the one case is not perfect, and in the other the anthers are mere rudiments, without a trace of pollen in any that I have examined. The two forms are truly male and female plants.

In the female plant the pistil, with its well-developed stigma, projects one-eighth of an inch beyond the throat of the corolla. The small rudimentary anthers are sessile, and hidden among the coarse down of the corolla tube, so as not to be seen without dissection.

In the male plant it is the rudimentary pistil which is confined in the villous tube, far out of reach of pollen influence, if even it were perfectly developed. On the other hand, the anthers are borne on filaments which are free from the corolla for one-eighth of an inch, and projecting that much beyond the corolla throat.

In the case of *Epigæa* I had to record many variations in the form and proportions of the floral parts. *Mitchella* is as remarkable for uniformity; except that the calyx teeth in the male are coarser than in the female, there is little variation from one type. Dr. Gray observes that the lobes of the corolla

1868.]